



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

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August 11, 2000

MEMORANDUM

SUBJECT: Draft Victoria Golf Course Field Sampling Plan, Carson, Los Angeles County, California (EPA QA Program Document Control Number [DCN] ZZCA153S00VSF1)

FROM: David R. Taylor, Ph.D., Sr. Document Reviewer
Quality Assurance Office, PMD-3

David R. Taylor

THROUGH: Vance S. Fong, P.E., Manager
Quality Assurance Office, PMD-3

Vance S. Fong

TO: Rachel Loftin, Project Manager
States Planning and Assessment Office, SFD-5

A field sampling plan (FSP) for the Victoria Golf Course (VGC) site investigation, prepared for the U.S. Environmental Protection Agency (EPA) by Ecology and Environment, Inc. (E&E) and dated August, 2000, was reviewed. The review was based on guidance provided in the following EPA documents: "Preparation of a U.S. EPA Region 9 Field Sample Plan for EPA-Lead Superfund Projects" (9QA-05-93, August 1993); "Guidance for the Data Quality Objectives Process" (EPA QA/G-4, September 1994); and "Use of Low-Flow Methods for Ground Water Purging and Sampling: An Overview" (December 1995).

The FSP addresses most of the elements required by Region 9 guidance. However, some concerns were noted during the review and are discussed below.

Concerns

1. [Section 1.0, Objectives of Sampling Effort; Sections 2.4, Previous Investigations; 3.3, Sampling Recommendations; Section 3.3.1, Groundwater] These sections state that groundwater will be sampled for metals, since no previous data is available for metals concentration on site. However, there is no information to suggest metals are a potential problem, nor will the data be used in scoring the site. A rationale should be provided justifying why metals are a contaminant of concern at this site.
2. [Section 2.6, Apparent Problem] It is not clear to the reviewer why having aquifers interconnected constitutes a problem. It is certainly not a problem within the abilities of the

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Agency to remediate. It is suggested that the problem be defined more in terms of issues that can be addressed by the present effort.

- 3A. [Sections 5.4.3, Well Purging; 5.4.4, Well Sampling; Table 5-1, Sample Equipment] Sections 5.4.3 and 5.4.4, and Table 5-1 describes purging and sampling of monitoring wells using a polypropylene bailer. Region 9 recommends purging and sampling of wells using low flow purge method at 100 to 500 mL/min for volatile organic compound (VOC) and metals analyses, or else including a discussion concerning why the bailer alternative was chosen.
- 3B. Section 5.4.4 states that groundwater samples will be filtered for dissolved metals analysis in the laboratory using 0.45 micron filters. It is strongly recommended that the samples be filtered and acidified in the field to avoid any chemical reactions which can change the analyte concentration of the water samples. In addition, there are no provisions for requiring a Contract Laboratory Program laboratory (where these samples will likely be sent) to preform filtration. The Site Assessment section should be consulted for its current policy concerning filtration. In the past it recommended that a 5 micron filter be used for groundwater filtration, but this may no longer be the case.
- 3. [Section 5.4.5, Trip Blanks; Section 8.1, Blanks] These sections state that trip blanks will be prepared and analyzed for VOCs. It is the Region's policy that blanks should be collected in the following order of priority: equipment blanks, field blanks and lastly, trip blanks. Only one type of blank should be collected each day or for every 10 samples (whichever is less frequent) unless the probability of contamination is high. It is recommended that field blanks be collected in preference to trip blanks. It may not be possible to obtain trip blanks from the laboratory(ies) performing the analyses and there are no provisions for requiring Contract Laboratory Program (CLP) laboratories to provide trip blank analyses at no cost to the Agency. Field blanks should be analyzed for all contaminants of concern. At a minimum, the number of trip blanks (7 compared to 10 samples) appears to be excessive and should be justified.
- 4. [Section 5.5, Soil Gas Sampling] It is unclear from the plan whether the FASP laboratory will be on-site collecting and analyzing soil gas samples. It is also unclear why the FASP SOP for the Operation of the Geoprobe will be used if the FASP laboratory will not be analyzing the samples. It is assumed that the Region 9 Geoprobe will be used, but these points should be clarified.
- 5. [Section 5.7.2, SUMMA Canister and Soil Gas Sample Train Decontamination] Section 5.7.2 states that the sample train will be decontaminated on site by heating it with a blow dryer for five minutes after each use. To ensure proper decontamination, the FSP should provide more specific information including desired temperature.

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6. [Section 6, Disposal of Investigative Derived Waste] Section 6 states that if soil contains obvious contamination it will be stored in drums, sampled, and analyzed. The FSP should describe the characteristics of obvious contamination (e.g., using a vapor analyzer, odor, stained soil). The FSP should also identify the person who will make this decision.
7. [Section 7.5, Sample Traffic Reports, Chain-of-Custody Records, and QA/QC Summary Forms] This section states that if multiple coolers are sent to a single laboratory on a single day, only one form will be completed. Proper chain-of-custody (COC) requires that each cooler have a separate COC reflecting the contents of the accompanying cooler only.
- 9A. [Section 8.3, Duplicate Samples; Section 8.4, Laboratory QC Samples; Table 4-1, Analytical Methods and Requirements - Matrix: Groundwater; Table 4-2, Analytical Methods and Requirements - Matrix: Soil Gas] The tables list selected sampling locations for duplicate and laboratory QC samples. The text should provide rationales as to why these sampling locations were selected.
- 9B. Section 8.3 states that a 20% relative percent difference (RPD) between duplicate samples will be considered acceptable. The FSP should also describe the actions to be taken in those cases where the RPD is greater than 20%.

Comments:

1. [Cover Sheet] The cover sheet does not include site location, address, and EPA identification number; anticipated sampling dates; name of the preparer, address and telephone number; and approval blocks for EPA personnel. The cover sheet should be revised to include this information.

If you have any questions or need any further information please feel free to contact me at 415-744-1497.